Inside	April 11, 2003 Volume 33 Number 8
News Briefs	2 Vive la Différence
Special Events Calendar	2 SIRTF Counts Down to Launch3
JPLers, Engineering Students	2 Letters, Passings, Classifieds 4



SIRTF launch approaching

The JPL-managed Space Infrared Telescope Facility (SIRTF) is undergoing final preparations for its launch later this month from Kennedy Space Center aboard a Boeing Delta-II rocket.

The second stage of the SIRTF expendable launch vehicle has been hoisted and installed atop the Delta-II first stage on Launch Pad-17B at the Cape Canaveral Air Force Station. SIRTF is seen here connected to its payload attach fitting (the gray and white ring at the bottom of the picture that the observatory is sitting on). This fitting connects the satellite to the Delta-II rocket.

The launch will be webcast live at http://www.jpl.nasa.gov/webcast/sirtf. For mission information, visit http://sirtf.caltech.edu.



Galex continues countdown to launch

Workers make adjustments on the Galaxy
Evolution Explorer while connecting the
spacecraft with the Pegasus XL launch vehicle
at Kennedy Space Center. The mission is
scheduled for launch no earlier than April 26.

Lab supports robot battle

With no small amount of help from JPL staff, local students and their homemade robots battled it out April 3–5 in the FIRST (For Inspiration and Recognition of



Local teams compete at the Sports Arena.

Science and Technology) Southern California Regional at the Los Angeles Sports Arena.

The robotics competition aims

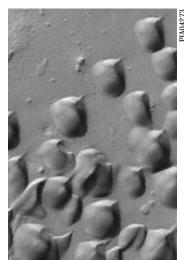
to inspire students, provide handson activities and foster teamwork.
The program provides students
with opportunities to work sideby-side with professional engineers to build a robot. Teams are
assigned a complex task their
robots must perform in competition. They receive a kit filled with
motors, control computers, raw
materials and many other parts
they need to get started.

About 20 JPL engineers worked as student mentors. In addition, more than 50 JPL employees volunteered at the event as judges, scorekeepers and in other capacities.

This year's game required robots to gather plastic storage containers from a central platform, return them to their side of the playing field and stack them. Teams received points based on the number of containers collected and stacked in the 2-minute match. Robots had 15 seconds to function autonomously, without driver control, to collect container stacks or knock down their opponent's containers. Robots were under control from their drivers for the remainder of the match.

NASA supported 20 of the 59 teams participating in the Southern California Regional competition, and also sponsored seven of the 23 regional competitions and nearly 200 of the 800 teams participating nationwide. The competition is conducted by the non-profit FIRST organization in Manchester, N.H. Teams are sponsored by NASA and a number of corporations.

An alliance of three Southern California Regional winners will advance to the national finals April 11-12 at Reliant Park in Houston.



Wirtz Crater dune field

Thousands of Mars Global Surveyor photos released

By Guy Webster

The winds of Mars leave their marks on many of the 11,664 new pictures posted on the Internet last week by the camera team for JPL's Mars Global Surveyor mission.

In one image, the pattern of sand dunes on a patch of south-ern-hemisphere desert resembles scales on a fish. On a larger scale, full-globe Mars images show wispy water ice clouds shaped by winds as the seasons change. Other new images reveal details of features such as gullies, land-slides and seasonal frost.

The new batch, taken between February and July 2002, brings the total number of images in the online gallery to more than 123,800. The images are available online at http://www.msss.com/moc_gallery.

Mars Global Surveyor has been orbiting the Red Planet since Sept. 12, 1997. The mission has examined the entire Mars surface and provided a wealth of information about the planet's atmosphere and interior. Evaluation of landing sites for two Mars Exploration Rover missions, due to launch in the next three months, has relied heavily on mineral mapping, detailed imagery and topographic measurements by Global Surveyor.

"The extraordinary wealth of information contained in this unprecedented release of new views of Mars attests to the ongoing scientific value of the reconnaissance of Mars that has been provided by Mars Global Surveyor for the past five years," said Dr. James Garvin, NASA's lead scientist for Mars exploration at NASA Headquarters.

Briefs



David Nichols



Dr. James Breckinridge

Nichols to manage Division 360 DAVID NICHOLS has been named manager of the Information Technologies & Software Systems Division (360).

Nichols earned a bachelor's degree in economics and a master's in Earth Science with a specialty in geospatial information systems from UC Riverside. He worked at the Environmental Systems Research Institute in Redlands and the Tektronix Corp. in Wilsonville, Ore., prior to coming to JPL in 1981.

At JPL, Nichols was the cognizant engineer for two All Source Analysis System subsystems, and was the assistant program manager for the Information Systems Technology Office. He also served as manager of the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) Project and then as manager of the Alaska Synthetic Aperture Radar Facility Development Project. In 1999, Nichols became manager of the Software Systems and Operations Engineering Section. Most recently, he held the position of assistant Division 36 manager for flight projects.

Breckinridge receives optics honor

DR. JAMES BRECKINRIDGE, Origins theme technologist at JPL, has been named the 2003 recipient of the International Society for Optical Engineering's George W. Goddard Award.

The award is presented each year to recognize exceptional achievement in optical or photonic instrumentation for aerospace applications. Breckinridge is being recognized for his cumulative work in several areas, including interferometry, corrective optics for the Hubble Space Telescope, optical sciences for NASA's Origins Program, and teaching optical system engineering at Caltech for 15 years.

Breckinridge will receive his award on Aug. 6 in San Diego at an international symposium held by the International Society for Optical Engineering.

Mars Program rated best in U.S.

The JPL-managed Mars Exploration Program has been named as the highest-rated federal program out of 234 evaluated government-wide by the Office of Management and Budget.

"We should be all proud that JPL has played a key role in making the Mars Program the highest-rated program," said JPL Director DR. CHARLES ELACHI. "I am particularly proud because this was done by working as a team with Headquarters and other NASA centers in the full spirit of 'One NASA' and showed how we can be a part in achieving the President's

Management Agenda. I extend my warmest congratulations not only to JPL employees and contractors working in the Mars Program, but also to every JPL employee who directly, or indirectly, helped any of the Mars activities. Our goal should be to have every JPL program be rated in the top 5% of all government programs."

"The evaluation recognizes how well the program has recovered since the loss of the 1998 missions and the quality of science the program is delivering today," said DR. ED WEIL-ER, NASA's associate administrator for space science. "The evaluation also notes the importance of the upcoming MER mission to validate the program

"Setting such a standard should be a source of pride for every member of our Mars exploration team," Weiler said. "I am particularly proud of the excellent team spirit between HQ and JPL in both long-term and day-to-day issues. This illustrates how we can excel at achieving our goal when we work as One NASA. I take this opportunity to congratulate JPL, which is the management center for this program within our NASA family."

Export training available on Web

The Office of International Affairs is now offering Export Regulations Web training in response to the Export Regulations education mandate, required annually for all JPL employees.

The training module, available online at http://itar-ear-webtraining. includes fundamental concepts related to export regulations, and is followed by a 20-question, interactive test.

For those who prefer to complete the annual training in person, register for the once-a-month "Export Regulations" course at the Education & Training website at http://hr/et. No other in-person classes will be offered in addition to the once-a-month classes. Everyone else must take the course online. Training records will be posted to the Learning Management System after successful completion of the test, and will be retrievable after 24 hours.

In addition to general guidelines, the International Affairs Office also offers in-depth, project-specific training on export regulations and restrictions. For additional information, visit the International Affairs site at http://eis. jpl.nasa.gov/international/intro.htm or contact one of the following export coordinators: BRENNA BALCOM (ext. 4-0434), CARMEN LAM (4-2120), STEPHANIE LEAR (4-0036), ED MOM-JIAN (4-4675) or RACHEL SKINNER (4-5658).

Special Events Calendar

Ongoing Support Groups

Alcoholics Anonymous—Meetings are available. Call the Employee Assistance Program at ext. 4-3680 for time and

Caregivers Support Group—Meets the first Thursday of the month at noon in Building 167-111 (The Wellness Place). For more information, call the Employee Assistance Program, ext. 4-3680.

Codependents Anonymous—Meeting at noon every Wednesday. Call Occupational Health Services at ext. 4-3319.

Gay, Lesbian and Bisexual Group-Meets the first Friday and third Thursday of the month at noon in Building 111-117. Call the Employee Assistance Program at ext. 4-3680 or Randy Herrera at ext. 3-0664.

Parents Group for Children With Special Needs—Meets the second Thursday of the month at noon in Building 167-111.

Working Parents Support Group-Meets the third Thursday of the month at noon in Building 167-111. For more information, call the Employee Assistance Program at ext. 4-3680.

Saturday, April 12

call (626) 395-4652.

Caltech Jazz Bands—An afternoon of Latin jazz, featuring percussionist Robertito Melendez, will be offered from 3 to 6 p.m. in Dabney Gardens. Free admission. For more information,

Folk Music-Singer/guitarist Aoife Clancy will make a rare California appearance at 8 p.m. in Caltech's Dabney Lounge. Tickets are \$15 for adults, \$5 for children under 12. For more information, call (626) 395-4652 or check the Folk Music Society web site at http://www.folkmusic.caltech.

Tango Buenos Aires—This ensemble will appear at 8 p.m. in Caltech's Beckman Auditorium. Tickets are \$25, \$21 and \$17; youth high school age and under, \$10. For more information, call (626) 395-4652.

Yuri's Night, The World Space Party—A global celebration of space born right here at Caltech and JPL, this highenergy, nightclub-styled event will take place starting at 9 p.m. at the Spacey Encounter Restaurant at Los Angeles International Airport and will be celebrated with 60 other cities around the planet. A VIP reception will include Dr. Matt Golombek, the Mars Exploration Program landing site scientist. Admission is \$20, with proceeds to benefit the children of the Columbia crew. For more information, visit www.la. yurisnight.net.

Tues.-Wed., April 15-16

Investment Advice—TIAA/CREF will offer one-on-one counseling. For an appointment, visit www.tiaa-cref.org or call (877) 209-3140, ext. 2614.

Thursday, April 17

Big Band Theory—The JPL swing band rehearses from noon to 1 p.m. in Building 82-115.

TIAA/CREF Enrollment—This workshop from noon to 1 p.m. in T1720-137 is designed to assist employees newly eligible for the JPL/Caltech TIAA/CREF retirement plan with selection of investment options and the completion of their enrollment forms.

Thu.-Fri., April 17-18

Von Kármán Lecture Series-Dr. Terry Martin, JPL research scientist, Earth and Planetary Atmospheres Element, will present "Mars Global Surveyor Across the Centuries" at 7 p.m. Thursday in von Kármán Auditorium and Friday in Pasadena City College's

Vosloh Forum, 1570 E. Colorado Blvd. Thursday's lecture will be webcast at http://www.jpl.nasa.gov/events/ lectures/apr03.html. For more information, call Public Services at ext. 4-0112.

Sunday, April 20

"The Quest for Consciousness: A Neurobiological Approach"-Caltech neuroscientist Dr. Christof Koch will speak at this Skeptics Society-sponsored lecture at 2 p.m. in the campus' Baxter Lecture Hall. Free admission for Caltech/JPL community. For more information, call (626) 395-4652.

Monday, April 21

Software Reviews Course—The Software Quality Improvement Project will offer a one-day class for project element managers and cognizant engineers from 8 a.m. to 5 p.m. Alan Ferdman of Section 512 will train attendees how to $conduct\ walk throughs,\ peer\ reviews$ and inspections of software products, from planning and conducting to creating both detailed and summary reports. Checklists will be provided for various types of inspections and reviews, including system requirements, subsystem functional requirements, software requirements, architectural design, detailed design, code (C and Fortran), test plans and test procedures. Registration is available at http://hr/et.

Wednesday, April 23

JPL Toastmasters Club—Meeting at 5 p.m. in the 167 conference room. Call Roger Carlson at ext. 4-2295 for

"Voting: Where We Have Been, Where We Are Going?"—Caltech political science professor Dr. R. Michael Alvarez will speak at 8 p.m. in Beckman Auditorium. Free admission. For more information, call (626) 395-4652.

Thursday, April 24

Big Band Theory—The JPL swing band rehearses from noon to 1 p.m. in Building 82-115.

Caltech Architectural Tour—The Caltech Women's Club presents this free service, which is open to the public. The tour begins at 11 a.m. and lasts about 1 1/2 hours. Meet at the Athenaeum front hall, 551 S. Hill St. For reservations, call Susan Lee at (626) 395-6327.

JPL Golf Club—Meeting at noon in Building 306-302.

JPL Story—Brian Cooper, designer of Sojourner's rover control workstation and cognizant engineer for the Mars Exploration Rovers' sequencing and visualization program, will present "Playing the Greatest Video Game in the Solar System: Stories From a Mars Pathfinder Rover Driver" at 4 p.m. in the Library, Building 111-104. If you have questions about the JPL Story series or wish to participate, call Teresa Bailey at ext. 4-9233

Friday, April 25

Caltech Women's Club-A Welcoming Coffee will be offered from 4:30 to 6 p.m. at the Caltech Athenaeum's Ratheskeller. For more information, call Carol Anderson at (818) 790-8175.



Rick Miller in MacHomer: "The Simpsons" Do MacBeth-This one-man show features more than 50 voices from "The Simpsons." To be held at 8 p.m. in Caltech's Beckman Auditorium. Tickets are \$15 for adults; \$10 for youth. For more information, call (626) 395-4652.

Ongoing

The Social Security representative will no longer be doing one-on-one counseling appointments on Lab. Call the Benefits Office at ext. 4-3760 to arrange for a telephone counseling appointment.

A number of JPL "rocket scientists" have done their part to inspire the next generation of explorers with their appearance at the recent national convention of the National Society of Black Engineers, which hosted more than 10,000 pre-college and college engineering students and technical professionals. A committee comprising of a diverse group from throughout the Lab that included Shonte Wright, Ken Brown, Dr. Eddie Tunstel, Dr. Ayanna Howard, Dr. Ashitey Trebi-Ollennu and Toby Solorzano hosted a pre-college JPL tour, two technical workshops, and a hospitality suite jointly sponsored with NASA.

The workshop titled "Martian Rocket Scientists" focused on Mars exploration and the science and engineering concepts used for the latest robotic technologies for space, Howard said. More than 60 students were given the opportunity to ask the five-panel team about what influenced them to become part of the NASA-JPL team.

In addition, more than 100 pre-college students received a rare treat with a tour of labs from Divisions 33, 34 and 38. Students toured the Field Integrated Design and Operations (FIDO) lab, the Space Simulator, Environmental Test Laboratory, and other sites.

Students also had the opportunity to talk one-on-one with scientists, engineers, and several managers ranging from group supervisor to deputy division manager.

"Many students voiced their enjoyment of the program," Howard said, "stating that it allowed them to see how engineering was really used for space exploration. It showed them that 'one day, I too can be an engineer and do some



JPLers host engineering students

Left to right: Toby Solorzano, Dr. Eddie Tunstel, Shonte Wright, Ken Brown, Dr. Ayanna Howard.

by Mark Whalen

hat is your experience in the diversity field prior to coming here? Let me share my background with you. I was born into a multicultural family in Guyana (formerly British Guyana), on the continent of South America. It is a country rich in racial, ethnic and cultural diversity. My upbringing and education in this environment provided the foundation and avocation for this work.

Emigrating to the United States awakened interest in this work. Although I didn't start out in the field of diversity, my experience in the business arena provided the insight, knowledge and ability to pursue the work.

I became an advocate for diversity. That enabled the opportunity to acquire the knowledge, skills, ability and education to further the work, build bridges to champions with influence, and create change in pockets and across the organization. What had appeared to be impossible became possible when commitment, focus and execution were consistently applied. Those wins fueled my passion for this work.

For the past several years I've done this work in the high-tech industry, in engineering, research and development and consulting environments, namely Fujitsu Corp. and Apple Computer, as well as in academia, working with K-12 and universities. Those environments are similar to JPL in many ways, and in some ways very different. However, when you have two or more people working together, diversity opportunities exist. Thus, diversity principles are applicable, much like accounting principles apply regardless of the environment.

Working for a primary government contractor, such as JPL, is a new experience and a new opportunity to take this work to the next level. In an environment like this, where brilliant and creative minds exist, the possibilities for continuous transformation are endless.

How does JPL set its diversity goals? For example, are there guidelines about hiring certain percentages of women and minorities each year?

I am glad you asked the question the way you did. It provides the opportunity to distinguish the difference between affirmative action, equal employment opportunity and diversity, as well as the relatedness.

What are the distinctions?

Jennifer Cummings-Martin

Diversity Programs Office.

On the job since December,

she leads a team responsible

for administering the

Laboratory's affirmative

action plan, and provides

equal opportunity and

diversity issues. Universe

spoke to her about how

the office operates.

0

consulting and guidance on

is the manager of JPL's

Affirmative action is legislated. It is a mandated program designed to facilitate and ensure hiring of underutilized groups of the workforce population, ultimately

So, if you will, diversity is a business practice. It is not a program. It is the way you do business: assess, set objectives, measure, educate, recognize and reward.

Why does JPL need a diversity manager?

Diversity is an organizational issue, not simply a matter of staff development. As JPL continues the transition from a homogeneous to a heterogeneous workplace it is essential to have this role—someone focused on initiating the systemic changes necessary to enable an environment in which differences are valued and accessed. My job is to help the population understand that we've done great work over the years; however, we have a tremendous opportunity to do even greater work as we focus more on business objectives and less on personality or uniqueness.

An objective manager should measure based on results, not on whether you went to the right school, you live in the right neighborhood, drive the right car, or that you look like me.

Until we get to that place where we are primarily focused on measuring objectively, then there is a need for my job. That is my personal opinion.

Do you work with Human Resources on recruitment?

Absolutely. The affirmative action plan drives head count in terms of who we enroll in the organization. And NASA measures us based on the achievement of our affirmative action placement goals, as does the Office of Federal Contract Compliance Programs. It is a partnership and collaboration with Staffing and those who do the hiring. We share with the hiring constituents when there are job opportunities in areas of underutilization, the need to access a broad candidate pool and the application of objectivity relative to the essential functions of the job.

We should measure people by the work objectives and by their accomplishments. Are you achieving the results? If not, why not? Is it a skills challenge? Is it a lack of communication?

It's an education process—a partnership and collaboration that occurs at all levels of the organization.

We also partner and collaborate with other business functions in outreach to underutilized groups.

Besides working with the Staffing group, how are you working with supervisors in general on Lab?

Since I am new to the position, I am engaging in discovery conversations, delivering general education, and building relationships. In the months ahead I want to focus







 \mathbf{E}

ensuring that numerical representation is achieved. Affirmative action is about counting heads.

Equal Employment Opportunity is the law that prohibits discrimination on the basis of sex, race, creed, color, religion, national origin, ancestry, age, marital status, pregnancy, sexual orientation, status as a disabled veteran, or veteran of the Vietnam era, or other eligible veterans, and for otherwise qualified individuals with a disability. Equal employment is about enabling access to all opportunities.

As a government contractor, we are compelled to uphold the law.

Diversity is proactive and is derived from the assumption that high-performing, effective organizations are not possible without enrolling, integrating and leveraging multi-ethnic/multicultural human capital. It is focused on the realization that equity of opportunity is good for business, and achieves broad-based representation of cultural and human diversity.

Workforce diversity includes everyone. It's about acknowledging our differences and supporting ways to utilize everyone's unique perspectives and talents to accomplish business objectives and create competitive advantages.

Diversity is about making heads count. Now that you have all of these different people in your organization, how do you make them more effective while achieving your business goals?

For example: in terms of the implementation of the NASA strategy, we need to understand our workforce, their skills and abilities, the types of things that do and could get in the way, and minimize/eliminate the obstacles so that we deliver on time and on budget.

on understanding the environment, what might be absent, what is needed and how we communicate the message and actions to the workforce. I need to understand the levels of awareness, commitment and execution, and deliver the education to address those gaps.

Diversity is an institutional business practice. Therefore, it's not just supervisors and managers; all employees are accountable. It's a top-down, bottom-up approach that gets us to systemic accomplishment of continuous transformation.

Ultimately, when this work is done and executed by everyone, we will get to a place where we can address tough issues in a very candid and respectful manner. We want to make sure we get to a place where we are rewarding the appropriate behavior and correcting the gaps.

Do you keep track of things like women and/or minorities taking new management positions?

We measure all aspects of the employment function to ensure achievement of business objectives, identify and correct gaps, and manage inconsistencies. This enables us to enroll, promote, reward, recognize and terminate.

How would you enroll employees in JPL's diversity business

I believe that, in general, people are hungry for knowledge and once that knowledge is transferred, they are more likely to self enroll so it becomes a pull rather than a push. To that end, we will take the time to continuously communicate the vision, mission and strategic initiatives around this business objective.

Bonus Award recipients named

The Compensation Advisory Subcommittee recently selected recipients of the Level A Bonus Award. Six individuals who received the **Edward Stone Award for Outstanding Research** Publication, a Level A Bonus Award, were previously announced and are not included in the list below.

The Bonus Award Program recognizes individuals and teams for outstanding achievements and leadership behaviors. Specifically, Level A Bonus Awards are given to individuals for accomplishments that impact JPL as a whole and (a) achieve one of JPL's significant goals or objectives, (b) enhance JPL's reputation, or (c) advance a field of knowledge.

Awards were presented to recipients in March by the issuing directorates (indicated in bold).

OFFICE OF THE DIRECTOR Gregory Garner (Section 6220), Richard Volpe (6650).

BUSINESS OPERATIONS AND HUMAN RESOURCES DIRECTORATE Reynaldo Garcia (2222), Juliana Murphy (2532), Sahar Yousef (2221).

ENGINEERING AND SCIENCE DIRECTORATE

Daniel Crichton (3810), Charles Dunn (3350), Wendy Edelstein (334B), Annette Larson (3690), Timothy O'Donnell (3530), Kim Reh (3410), Harold Yorke (3262).

PLANETARY FLIGHT PROJECTS DIRECTORATE Joy Bottenfield (3193), George Carlisle (3121), Michael Tankenson (314B).

quick, exc. handling, been trouble-free, an

underrated car, avail. mid-April, \$5,250 cash or cashier's check. 626/446-6751.

'98 FORD Crown Victoria LX, 4.6L V8, 4 door,

white/beige, leather, CD, keyless entry (remote

split front seats, gd. cond., \$12,500. 822-6465, or code3media@crownvic.net, Ryan.

'97 FORD Escort LX 4D, 4 dr., red, 95,000 mi.,

'96 FORD Thunderbird LX, pearl, V8, cruise,

O/drive, leather, pwr. windows/locks/mirrors/ seat, new tires, 97K mi., great cond, \$5,000.

'96 FORD Windstar GL, only 57K mi., \$6,500/

'95 FORD Taurus LX wagon, exc. cond., deep

remote entry, cruise, pwr. seats, elec. temp

control, top of line, only 56K mi., beautiful.

'89 FORD Ranger XLT, extra cab with a/c,

Pioneer CD player, SNUGTop shell, new tires and new shocks, \$4,000/obo. 626/797-4650.

'33 FORD 5-window coupe, all steel, 350/350,

Sanderson headers, Edelbrock Performer manifold-carburetor and electric choke, Mallory dis-

tributor, 4" drop Superbell front axle, 9" Ford rear end, suicide doors w/dead bolts, American

Lecarra steering wheel, Pioneer stereo, bucket

'97 HONDA, 4-dr. LX sedan, 62,000 mi., 5-sp.

Racing 5-spoke alum. wheels, remote power

windows, classic instruments, vintage air,

seats, professional restoration w/300 mi.,

stick, cruise control, power everything, exc. cond., \$6,900 or 626-836-8561, Jack.

'95 HONDA Accord EX, 4 door, 92,000 mi..

'94 HONDA Nighthawk motorcycle, 250cc

VTEC, a/c, moon roof, full power, good cond., \$7,500. 353-2103.

2500 mi., exc. cond., kept in garage, $\$1,\!500.$

'91 HONDA Accord LX, 139,000 mi., a/c, 4 dr.,

'84 HONDA Sabre VF700S motorcycle, 700 cc,

18,500 mi., black, rear rack, windshield, good

'89 ITASCA Windcruiser, 32' class A motorhome,

22,000 mi., GMC 30 chassis, 454 w/Banks

power pack, generator, queen bed island, 3-

way appliances, 2 rooftop a/c, 2 TVs, VCR, antenna, connections for cable/satellite,

very clean, \$24,000. 626/335-7345.

detailed, \$7,000. 626/584-6911

626/446-8496.

626/286-6634.

backup CCTV, leveling jacks, tire pressure warning system, hitch receiver, lots of storage,

'95 JEEP Grand Cherokee Ltd., 132,000 mi.,

exc. cond., silver, V8, AWD, sunroof, CD, lather interior, alloy rims, new brakes, recently

'89 MAZDA MX-6, 2-dr, good cond., 150K mi.

'96 PONTIAC Firebird/Formula, 3.8L V-6, dark

owner, 235/55 x 16 alloys, limited slip, 4 spd.

auto, pwr. windows, 10-spkr. sound, dash & car

cover, \$10,000. dahun@ pacbell.net or 661/252-9777, after 5 p.m. & weekends, Peter.

'95 SAAB 9000CS, hatchback, 4-dr. black w/tan leather interior, 97K mi, 5-spd, AM/FM/cass./6-

CD changer, sunroof, great cond., \$6,200. 323/664-2672.

'98 SAFARI, 35 ft. Sahara w/galley slide, 300

CAT, 6 spd. Allison, Alcoa wheels, auto sat, 6.3

gen, 2K inverter, SilverLeaf electronic monitor, Girard auto awning, micro/conv oven, washer/

dryer, tub/shower, ultra leather, extra cabinets,

non-smoker/ pets, 35,000 mi., \$115,000; '00

el w/brakes, undercoating, like new, \$4,950.

all season, 175 mi., \$475. 626/798-3436.

CARSON 18 ft. enclosed car hauler, tandem ax

TIRES, 4, Michelin Pilot XM MXM4, 205/55-16,

'98 TOYOTA Camry LE, white w/gray interior, 77K mi., gd. cond., \$8,500/obo. 952-9022.

'98 TOYOTA Tacoma PreRunner Xtra Cab, 4 cyl, auto, 77K mi., a/c, am/fm/cass., dual front air

bags, running boards, shell, bed liner, vg cond.

'91 TOYOTA Tercel LE, 4 cyl., white, 4 dr., 5 spd.

98.5K mi., smog and '03 tags, well maint., clean,

'88 TOYOTA Camry, 135K mi., gd. cond., auto,

pwr. windows, priced to sell, \$950. 731-0470.

moonroof, power windows/locks, alloy wheels, blue, \$13,995. 909/599-3230.

stick shift, am/fm/cass., fullsized spare, only

2WIP768, \$2,300/obo. 323/222-0485, Joe.

'02 VOLKSWAGEN Jetta GLS, auto, 5K mi.,

\$10,500/obo. 626/296-9073

green metallic/graphite cloth, 53,559 mi., 1

\$42,500. 626/286-6634.

562/693-1136.

\$2,600/obo. 562/926-7949.

cond., \$1,200. 626/794-2431

green/beige leather, moon roof, 3rd seat,

& keypad), cruise, power everything, 100K,

well maintained, very good cond., snow equipment, \$4,950. 626/497-5102.

562/908-7709.

626/798-2925.

obo. 626/836-4767.

OFFICE OF SAFETY AND MISSION SUCCESS Tien Nguyen (5100), Rajeshuni Ramesham (5126).

EARTH SCIENCE AND TECHNOLOGY DIRECTORATE Kent Kellogg (8830), Michael Watkins (3120).

INTERPLANETARY NETWORK DIRECTORATE Gordon Campbell Jr. (9560), Jeanne Holm (9540).

To learn more about the Bonus Award program, visit the Bonus Award Web page at http://eis.jpl.nasa.gov/ hr/esr/BONUS. This site has a link to the Universal Nomination Form and can be used by managers to electronically submit award nominations for decentralized awards including Bonus Awards (levels B, C and Teams) and Spot Awards. Peer nominations for decentralized awards are also accepted through the Universal Nomination Form.

For more information on nominations or the Bonus Award Program, contact the Compensation Group at ext. 4-8187 or 4-5770.

Lassings

SARA GILMORE, a retired executive secretary, passed away peacefully on March 11 at her home in Pasadena. Gilmore joined JPL in 1952 and retired in 1983. She is survived by nephews John Gilmore of Laguna Beach and Robert Gilmore Jr. of Pleasant Hill, Calif., and their families.

Private services were held in Mason

GARY PARKER, 64, former integration and test manager for Cassini's spacecraft system, died in the crash of his airplane on March 21. Parker had departed from his ranch in Santa Maria

Parker worked for JPL for 39 years until his retirement in 2000. He received NASA's Exceptional Service Medal for his work as spacecraft manager for the Magellan mission to Venus, the Outstanding Leadership Medal for his work on Cassini, and the Exceptional Service Medal upon his retirement.

Parker is survived by his wife, Cyn-A memorial service was held March

In lieu of flowers, the family requests donations in Parker's name be made to St., Pasadena, 91107-2435.

VEGETABLE STEAMER, Black & Decker, new,

DESK, roll top/secretary style, walnut veneer, good cond., \$125/obo. 626/351-9223.

DIGITAL CAMERA, Sony Cybershot DSC-P1, 3.3M pixels, tiny, hi res., movie capability, nev er used, \$349/obo. 687-8627, Alberto.

DINING SET, 9-pc., brand new, contemporary solid cherry wood, includes: 1 expandable table (leaf incl.), 2 armchairs, 4 reg. chairs & 2 china cabinets, 64" x 44", leaf: 22", china cabinet, each, W 32" x H 78" x D 16", located in Burbank, \$1,000/firm. 693-4245, Fidel.

DODGER TICKETS, selected gms from season ticket pkg., loge level (orange), aisle 132 (inside 1st base), 2 tickets/gm. at face value of \$29/ticket. www.delunac.net/tickets, 626/296-1253.

DVD PLAYER, Toshiba SD-3750, progressive scan, 3:2 digital cinema progressive conversion enhanced audio, mode/dialogue expander, 540line output, 4x digital picture zoom, plays audio CD/CD-R/CD-RW/DVD/video CD (VCD), cheapest price on web is \$199.95, sacrifice for \$100; PORT REPLICATOR, for IBM Thinkpad, works w/T20, T21, A20, A21, or X, R series, like new, \$85. 790-3899.

DRESSER w/mirror, mahogany, 1860s, \$275; TABLE, antique oak, w/fold-up extensions and 4 upholstered oak chairs, \$350; DRESSER, antique walnut, 5 drawer, \$100; TV, 26', Sylvania, console, color, \$50. 626/359-7666.

HOT TUB, 6 ' Softub, maroon, good cond. \$500. 248-2931 .

MILLENIUM FALCON, Star Wars Return of the Jedi edition from Kenner, good cond., original box, \$50. 626/398-3649.

MOVING SALE, bicycle, RCA-VCR, many house hold items and furniture. 626/446-8496

MOVING SALE; 20" TV, \$15; (following are 2 mo. old): Sentra twin mattress, \$25; inkjet printer, Epson, boxed, \$30; rice cooker, 10 cup, \$7; surge protector, Belkin, \$10. 626/792-7131 or biocpu@yahoo.com.

MOVING SALE: nearly new furn. in vg cond.; all prices obo; desk, pine 2-drawer, \$200; chairs, 2 cafe-style, black metal w/off-white cushions, \$80; TV/stereo cabinet, lg., teak, \$850; armoire, pine painted white, \$500; bookcases, 2 Bonde style from Ikea, cherry finish, 14 x 86" & 28 x 86", \$275; end tables, 2 Indonesian teak w/iron details, \$130; Restoration Hardware floor lamp, retro 3-bullet tree style, \$85. 323/664-2672.

OIL DRUMS, 54 gallon, 2, \$10/each. 957-3675. PATTERN MAKING SYSTEM, Lutterloh, incl. tool kit with tailor's curve, instructions, and 280 models and pattern designs manual, used once, \$100/obo. 323/268-6645, Priscilla.

PLAYPEN, portable Graco Pack N Play, with UV sun shade, good cond., used only a few times, \$60; TRICYCLE, girls, exc. cond., \$25; HIKING BOOTS, men's, used one time, size 11 1/2, orig. \$170, sell \$100. 626/798-6248.

POWER SUPPLY, high-voltage, DC, HP 6448B, 0-600vDC, 0-1.5A, voltage and current are both adjustable and metered, regulated, protected, rack-mount, \$350; more info/ pictures

sms@dtuttle.com or 626/676-0334. ROAD BIKE, 2001 GT ZR 1.0, Team Lotto frame, 56 cm, Reynolds Ozo Pro full carbon

fork, 1 1/8, headset-Chris King, black, must sell, \$650/obo. 548-5082. SECTIONAL, approx. 9' x 7', frame, springs and cushions are in excellent cond., needs new

pillows and fabric, \$50. 626/850-4378. SOFA, like new, custom floral, greens, yellow and reds, \$400/obo; MOUNTAIN BIKE, like new, 24", girls, \$100/obo. 952-0448.

SOFTWARE, PrintShop CD Label Creator, in orig. box, Windows XP compatible, w/label-applying device, \$10; DIET TAPES, Jenny Craig, set of 14. S50: COMPUTER POWER CONTROL CTR. 5 pwr. switches + 1 master switch, 5 surge-protected outlets + 2 modem/fax/phone jacks, new, \$20; ORGAN, Yamaha 415 electronic console w/13 pedals, 3 keyboards, 144 rhythm patterns, pd. \$7,500, sacrifice for \$2,000. 790-3899. STOVE, gas, Magic Chef, slide in, almond, electronic controller, good cond., $10~\rm yrs$ old, \$25.

STROLLER, Combi Savvy, lt. weight, compact, dk. blue, exc. cond., \$ 50. 626/850-4378.

626/794-2431.

TABLES, 2, custom designed, rod iron, glass top indoor/outdoor, \$1,500; COMPUTER DESK, \$100; OFFICE CHAIR, \$35/obo. 248-1102.

TREES: red banana plant 5' tall, \$60/obo; fish tail, 6' tall, \$80/obo; fichus, braided, in 30" plastic pot >10' tall, \$250/obo; ceramic bowl, gray, 2' diameter w/planted geraniums, \$40/obo. 626/791-6101.

rocks and accessories not required but will take off hands. 626/797-3231, Mike. CIGARETTE LIGHTERS, unusual, particularly occupied Japan. 909/593-4413, Greg.

GUEST HOUSE, for JPLer and classical pianist wife, must be isolated enough that no one is bothered by piano, like a free daily concert. 323/731-7445.

(geometry, algebra, SAT math, etc), eves and/or weekends. 888/784-1639, David, leave msg.

SPACE INFORMATION/memorabilia from U.S. & other countries, past & present, for personal use. 790-8523, Marc Rayman.

VANPOOL RIDERS, for Lancaster/Palmdale/ Littlerock/Acton area, van leaves Angeles Forest Park & Ride at 5:30 a.m., returns from JPL at 4 p.m., \$150. Frank Shanklin, 3-0505 or Shirlee Kurtz, 4-9737.

Free

CLEAN FILL DIRT, 15 cu. yds. avail., you haul as little or as much as you like, near Robles/Jackson, Pasadena. 626/791-3103.

 $DOG,\ possible\ Terrier\ mix,\ housebroken,\ small$ black and white female, spayed, etc., to good home. 626/345-0975.

DOG KENNEL, large, 24" W x 36" D x 26" H, suitable for airline travel, used. 626/795 4856. GARAGE DOOR OPENER, Stanley, new replacement parts: gear case cover and worm gear. 323/255-3226

INK CARTRIDGES, 6, for a Canon 6000 printer.

MATTRESSES, 2, used, twin, spring box & metal frame w/wheels, gd. cond. 626/390-8736, leave msg.

For Rent

ALTADENA, 3 bd., 2 ba. + family rm., parklike setting on a cul-de-sac, 554 Buena Vista, just east of Christmas Tree Lane (commonly known as Santa Rosa); hardwood floors, formal din. rm., separate laundry & priv. patio off the family rm., cent. air and heat; \$2,300 + deposit of \$3,450; would like a year's lease but will consider less. 626/395-0130, France Meindl.

LA CANADA, private room in home, w/private bath, off-st. parking, BBQ, pool, full kitchen priv., wash/dry, etc., \$550+utilities. 790-1280. PASADENA townhouse, 77 Michilinda, near Caltech, 2 bd., 1.5 ba., in-house washer/dryer, fireplace, \$1,475. 626/379-3503.

PASADENA apt. to share, unfurn'd bdrm & priv. ba., in lovely furn. 2 bd., 2 ba. near Old Town, share gas/electric, carport, central air, carpet, f/p, free laundry, cable/phone hookups, no pets, non-smoker only, \$600 + \$500 deposit. 626/564-9885, eves.

PASADENA apt. to share, fully furn., 3 bd., 3 ba., townhome-style, w/patio, a/c, laundry facilities, close to Caltech and JPL, \$625, incl. util.

PASADENA, spacious 2-story condo, 3 bd., 2.5 ba., prestigious community, beaut. inter., bright ktch., prof. landscape, ctrl. air & heat, close to shop., cozy LR w/FP, end unit, frml DR, hdwd. flrs., immac. cond., close to schls. \$1,750. 626/396-9024.

SIERRA MADRE, townhouse-style apt. to share, 1,000 sq. ft., large patio, 2 bd., 1.5 ba., quiet st., garage parking, washer/dryer in unit, \$605 + 1/2 util. 626/355-4838, Heather.

SUNLAND, Sunland Village condo, 15 min./ JPL many JPLers live nearby 2 hd 1.5 ha washer & dryer, fireplace, balcony, refrig., stove/ oven, dishwasher, garbage disposal, attached oversized double gar. w/ample storage, 2 pools, Jacz., tennis court, 210 fwy & shopping close by, \$1,200. 951-3653 or 352-0786.

Vacation Rentals

BALBOA ISLAND, cute beach apt., fully furn., 2 bd., 1 ba., patio, washer/dryer, parking, sleeps 5, steps to bay, available weekly April thru summer, \$1,000-\$1,500/week depending on week. 626/351-9641.

BIG BEAR LAKEFRONT, luxury townhome decks, tennis, pool/spa, beautiful master bd. suite, sleeps 6. 949/786-6548.

CAMBRIA, ocean front house, sleeps up to 4, excellent view. 248-1102.

HAWAII, Kona, ocean front on Keauhou Bay, house/guest house comfortably slp 6, 3 bd., 2

ba., rustic/relaxing/beautiful, swimming/snorkeling/ fishing, spectacular vw., nr. restaurants/ golf/other attractions. 626/584-9632. HAWAII, Maui condo, NW coast, ocean front

view, 25 ft. fr. surf. 1 bd w/loft, compl. furn. phone, color TV, VCR, microwave, d/w, pool, priv. lanai, slps 4, laundry fac., Low Season rate \$105/nite/2, High Season rate \$120/nite/2, \$15/nite/add'l person. 949/348-8047 or jackandrandy@cox.net.

MAMMOTH, Snowcreek, 2 bd., 2 ba., +loft, slps 6-8, fully equipped kitchen incl. microwv., D/W, cable TV, VCR, phone, balcony w/mtn. vw., Jacuzzi, sauna, streams, fishponds, close to Mammoth Creek, JPL discount. 626/798-9222. 626/794-0455 or valerie@gps.caltech.edu.

OCEANSIDE condo, fully furn., 2 bd., 2 ba., fireplace, full kitch., quiet, relaxing, beautiful beachside setting, w/BBQ/pool/spa/game room/ great ocean view, easy walk to pier & restaurants, slps 8, avail. weekly or monthly. 909/981-

7492 or dfhauge@yahoo.com, Darlene. OCEANSIDE, on the sand, charming 1 bd. condo, panoramic view, walk to pier & harbor, pool/spa, game rm., sleeps 4. 949/786-6548.

ROSARITO BEACH condo, 2 bd., 2 ba., ocean view, pool, tennis, short walk to beach on priv. rd., 18-hole golf course 6 mi. away, priv. secure parking. 626/794-3906.

JPL'S ONLINE NEWS SOURCE

Classified ads will be available the day before Universe is published at http://dailyplanet

View this and previous issues of Universe at http://universe.jpl.nasa.gov

> E-mail us at universe@jpl.nasa.gov

Editor Mark Whalen

Design + Layout Adriane Jach, Audrey Steffan/ Design Services

Chief Photographer Bob Brown/Photo Lab

Advertising

Susan Braunheim-Kalogerakos

Universe is published every other Friday by the Office of Communications and Education of the Jet Propulsion Laboratory, 4800 Uak Grove Drive, Pasadena, CA 91109.

Notice to Advertisers

Advertising is available for JPL and Caltech employees, contractors and retirees and their families. No more than two ads of up to 60 words each will be published for each advertiser. Items may be combined within one submission. Ads must be submitted via e-mail to universe@jpl.nasa.gov and are due at 2 p.m. on the Monday after publication for the following issue.

All housing and vehicle advertisements require that the qualifying person(s) placing the ad be listed as an owner on the ownership documents.

City, Iowa.

to return to his home in La Cañada.

thia, and children Eric, Ian and Leslie.

28 at Sacred Heart Church in Altadena. Villa Esperanza Services, 2116 E. Villa

etters

I would like to thank my friends and colleagues for their sympathy and support during my wife's illness and recent passing. Thank you for your kind thoughts and prayers. I also wish to thank everyone who sent beautiful flowers, and specially, the AIRS, MIRI and TES project teams. We are blessed for your thoughtfulness and caring concern. Jose, Tassi, Nathaniel and

I would like to thank my co-workers and friends within the APD Directorate, the 720 Program Office, and others in the JPL community for your support following the recent death of my very special father. Your acts of kindness and caring have truly been much appreciated. Also, thank you to JPL for the beautiful plant.

Katie Richards

Angelica Rodriguez

Classifieds

For Sale

ART WORK, must sell, signed & numbered lithographs & originals, some framed; Penni Anne Cross, Oz Franca, Lee Bogle, Maija, Peter Lyman, more; art cabinet w/stand, SafeCo 5drawer. 626/398-4960.

AUTO RACE TICKET, with parking, 3 days, April 11-13, exc. seat at top of grandstand, view o turn 1. 626/794-1398.

BABY ITEMS: crib, Simmons, whitewashed red maple + mattress, \$100; stroller, Kolcraft, tandem 2 seat, \$40; carrier/back-pack, Kelty Elite frame kid, \$75; safety gate, expands to 72 inches, \$10; castle climbing structure/slide, \$15; all items exc. cond., 3-5 years old, prices negotiable. 626/351-9223.

COFFEE MAKER, Braun, 10-cups, white/black, like new, \$30/obo. 626/791-6101.

CLOTHING: 2 pc./jacket & slacks, Jones of NY, jacket fully lined + slash pockets, new w/tags, sz. 12, dark olive, \$100/obo; 2 pc./jacket & slacks. Rena Rowan for Saville, white, lined, sz. 14, never worn, pockets still stitched, \$50/obo; COMPOSTER. Rubbermaid. \$40: JEWELRY: amethyst & diamond ring, set in 14K gold, sz. \sim 5-1/2; pearl ring, 8mm, set in 14K gold, sz. \sim 6 & more; ART, R.C. Gorman signed print;

Vehicles / Accessories '90 ACURA Integra, good rubber, everything works, Jasper green, \$2,200. 249-2669.

'90 BUICK LeSabre, very reliable, runs great, recent tires and brakes, 102K mi., good student or second car, \$1,500. 626/447-6423. CHRYSLER Gem, electric car, brand new, \$4,900. 626/379-3503.

'98 FORD Contour SE, 76K mi., exc. cond., 170 hp V6, 5 spd. manual, black w/gray leather, moonroof, alloy wheels, after-market stereo/ CD, alarm system, disc brakes all around, power windows/locks/driver's seat, Lo-Jack, quite

Wanted

AQUARIUM, 50-60 gal. tank w/stand, filter,

MATH TUTOR, jr. & sr. high school level classes